

	<p style="text-align: center;">MAHATMA GANDHI UNIVERSITY Kottayam, Kerala</p> <p style="text-align: center;">Undergraduate Programmes (HONOURS) 2024 Admission Onwards</p>
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SYLLABUS						
SIGNATURE COURSE						
Name of the College	St. George's College, Aruvithura					
Faculty/ Discipline	Food Science and Quality Control					
Programme	BSc (Hons) Food Science and Quality Control					
Course Coordinator	Veena Viswanath					
Contributors						
Course Name	FOOD PACKAGING AND SUSTAINABILITY					
Type of Course	SEC					
Specialization title	This Signature Course does not have a specialization.					
Course Code	MG6SECF5QA00					
Course Level	300					
Course Summary	Understand and explain the importance, need, laws and regulations, types and methods of food packages. The students will also familiarize with the design, testing methods and packaging materials and accessories. It also explains the importance and need of sustainable food packaging.					
Semester	6	Credits			3	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		3				
Pre-requisites, if any						

Course Outcomes (CO)

Number of COs		4	
CO No.	Expected Course Outcome	Learning Domains *	PO No
1	Understand the importance, need, laws and regulations of food packaging and explain about food packaging materials.	U	PO1, PO2, PO3
2	Understand the developments in food packaging and its impact on food safety. Describe on modern food packaging methods.	U	PO1, PO2, PO3
3	Explain on food packaging designs, testing and its international guidelines.	U	PO1, PO2, PO3
4	Describe on sustainable food packaging.	U	PO2, PO3, PO6, PO7, PO10

*Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Skill (S), Interest (I) and Appreciation (Ap)

CO-PO Articulation Matrix

CO/PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	2	3	-	-	-	-	-	-	-
CO 2	2	1	3	-	-	-	-	-	-	-
CO 3	2	1	3	-	-	-	-	-	-	-
CO 4	-	2	2	-	-	1	3	-	-	2

'0' is No Correlation, '1' is Slight Correlation (Low level), '2' is Moderate Correlation (Medium level) and '3' is Substantial Correlation (High level).

Course Content

Content for Classroom transaction (Units)

Module	Units	Course Description	Hrs	CO No.
1	Fundamentals and Regulations			
	1.1	Introduction to Food Packaging.	3	["1"]
	1.2	Food packaging laws and regulation.	4	["1"]
	1.3	Packaging materials.	4	["1"]
2	Advanced Packaging Techniques			
	2.1	Specialty packaging methods.	5	["2"]
	2.2	Smart and intelligent Packaging.	5	["2"]
	2.3	Ancillary Packaging Materials (Labels, Adhesives, Caps, etc.)	3	["2"]
	2.4	Impact of packaging on Food Safety.	3	["2"]
3	Packaging design and Sustainability			
	3.1	Packaging design and testing.	6	["3"]
	3.2	International guidelines for food packaging – CODEX food labelling standards.	6	["3"]
	3.3	Sustainable Packaging.	6	["4"]

Syllabus

Teaching and Learning Approach	Classroom Procedure (Mode of transaction) Classroom Procedure (Mode of transaction) Module 1& 2- Lecturing, ICT Enabled Learning, Experiential learning, Participatory learning. Module 3- Tutorial, ICT Enabled Learning, Participatory learning.
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Assessment Types	MODE OF ASSESSMENT Mode of Assessment: Theory
	A. Continuous Comprehensive Assessment (CCA) • Theory - 25 Marks Assignment, Test Papers, Lab Visits
	B. End Semester Evaluation (ESE) • Theory - 50 Marks Assessment Methods - Theory Duration of Examination - 1.50 Hrs Pattern of examination for Theory - Non-MCQ Different parts of written examination - Part - A , B , C Answer Type: <ul style="list-style-type: none"> ◦ PART - A ◦ One Sentence - (10 out of 12) - $10 \times 1 = 10$ ◦ PART - B ◦ Short answer - (4 out of 6) - $4 \times 5 = 20$ ◦ PART - C ◦ Essays - (2 out of 4) - $2 \times 10 = 20$

References

- Gordon L. Robertson. 2014. Food Packaging: Principles and Practice, 3rd Ed. CRC Press, Boca Raton FL, USA. Robertson, (1998), Principles of Food Packaging Press, USA Scharow, S., and Griffin, R.C. (1980). Principles of Food Packaging, 2nd Edition, AVI Publications Co. Westport, Connecticut, USA. Rajia Ahvenainen. 2003. Novel Food Packaging Techniques. CRC-Woodhead Publishing Ltd., Cambridge, England.

Suggested Readings

- Richard Coles, Berek McDowell and Mark J. Kirwan. 2003. Food Packaging Technology. Blackwell Publishing Ltd., Oxford, UK
- World Health Organization, Food and Agriculture Organization of the UN, Rome 2007, Codex Alimentarius, Food Labelling, Fifth edition.

Affidavit

- We, St. George's College, Aruvithura and Veena Viswanath, retain the copyright of this syllabus and expressly prohibit its distribution in complete form to any institution outside our own.
- We, St. George's College, Aruvithura, agree to appoint a new course coordinator for the proposed FOOD PACKAGING AND SUSTAINABILITY in the event of the unavailability of the currently nominated coordinator. This appointment will ensure the continued coordination of course delivery, assessments, and all related academic responsibilities necessary for the successful implementation of the signature course, for as long as the college offers this programme.
- We, St. George's College, Aruvithura and Veena Viswanath, declare that no part of this signature course submitted here for approval has been taken from the course content developed by, or from any of the course titles prepared by, the BoS/expert committee in the same discipline under our University.